

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 63027476
PUBLICATION DATE : 05-02-88

APPLICATION DATE : 21-07-86
APPLICATION NUMBER : 61171368

APPLICANT : MITSUBISHI CHEM IND LTD;

INVENTOR : TAKAHASHI KAZUNARI;

INT.CL. : C07D207/263 B01J 23/80 B01J 23/85

TITLE : PRODUCTION OF LACTAM

ABSTRACT : PURPOSE: To obtain the titled compound useful as an intermediate raw material for organic syntheses, under mild condition in high yield, suppressing the deterioration of catalyst, by using a cyclic imide having high thermal stability as a raw material and hydrogenating the compound in gaseous phase in the presence of a specific catalyst containing copper as essential component.

CONSTITUTION: A cyclic dicarboxylic acid imide or its precursor is used as a raw material and is subjected to vapor-phase hydrogenation at 200–300°C under normal or slightly positive pressure in the presence of a catalyst containing copper as an essential component. The reaction is carried out by carrying the evaporated raw material compound directly with hydrogen gas stream and introducing the compound into a catalyst layer. The cyclic dicarboxylic acid imide is preferably succinimide, maleimide, etc. The catalyst is preferably those composed mainly of a compound oxide consisting of copper and chromium and/or zinc and the content of copper in the catalyst is preferably about 5–85%.

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